

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Craig Nevill-Manning, et al.
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TITLE: Methods and Systems for Output of Search Results
EXAMINER: Miranda Le
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ATTY. DKT. NO.: 24207-10065

APPEAL BRIEF

Real Party in Interest

The subject application is owned by Google Inc. of Mountain View, California.

Related Appeals and Interferences

There are no known related appeals or interferences that may directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

Status of Claims

In a final office action dated 11/12/2008 ("FOA"), claims 1, 4, 5, 8-10, 15, 18, 19 and 22-24 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Manber (U.S. Patent No. 6,920,609) in view of Bailey (U.S. Patent No. 6,785,671). Claims 11-14, 25-28 and 36-40 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Manber in view of Bowman (U.S. Patent No. 7,124,129), and in further view of Bailey. Claims 32-35 stand

rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Manber in view of Bailey, and in further view of Bowman. Claims 2, 3, 6, 7, 16, 17, 20, 21 and 29-31 are canceled.

The claims on appeal are claims 1, 4, 5, 8-15, 18, 19, 22-28 and 32-40, which are set forth in the Claims Appendix.

Status of Amendments

Appellant has not amended the claims since the final rejection.

Summary of the Claimed Subject Matter

The claimed invention comprises elements related to receiving a search query and identifying a plurality of item identifiers responsive to the query (*See, e.g., Spec., ¶ [0015], [0021] and [0027]*). The item identifiers are associated with items offered for sale. (*See, e.g., Spec., ¶ [0005] and [0016]*). First and second groups of item identifiers are selected from the plurality of item identifiers (*See, e.g., Spec., ¶ [0015], [0021], [0027] and [0028]*). The first group of item identifiers is received from a vendor feed (*See, e.g., Spec., ¶ [0015], [0022], [0027]-[0029] and [0031]. Also see, e.g., Figure 2, steps 204 and 206.*). The second group of item identifiers is obtained by extraction of item identifiers from shopping documents that are not received directly from a vendor feed. (*See, e.g., Spec., ¶ [0015], [0018], [0019], [0022], [0027], [0032] and [0033]. Also see, e.g., Figure 2, steps 204 and 206.*). The item identifiers are displayed such that at least one item identifier from the first group is visually distinct from at least one item identifier from the second group. (*See, e.g., Spec., ¶ [0017], [0022], [0027], [0032] and [0033]-[0035]. Also see, e.g., Figure 3, text directly below element 306.*).

Claim 1 recites a method, comprising:

receiving a search query (*See, e.g.*, Spec., ¶ [0013] and [0026]. *Also see, e.g.*, Figure 2, step 202.);
identifying a plurality of item identifiers responsive to the search query, wherein each item identifier is associated with an item offered for sale and comprises information regarding the item (*See, e.g.*, Spec., ¶ [0015], [0019] and [0027]. *Also see, e.g.*, Figure 1, element 130 and Figure 2, step 202.);
selecting a first group of item identifiers from the plurality of item identifiers, wherein the first group of item identifiers was received from a vendor feed, the vendor feed comprising information from at least one vendor offering one or more items for sale (*See, e.g.*, Spec., ¶ [0015], [0021], [0027] and [0028]. *Also see, e.g.*, Figure 2, steps 204 and 206.);
selecting a second group of item identifiers from the plurality of item identifiers, wherein the second group of item identifiers was obtained by extraction of item identifiers from shopping documents offering one or more items for sale, the shopping documents not received directly from a vendor feed (*See, e.g.*, Spec., ¶ [0015], [0018], [0019], [0022], [0027], [0032] and [0033]. *Also see, e.g.*, Figure 2, steps 204 and 206.); and
displaying at least one item identifier from the first group in a visually distinct way from at least one item identifier from the second group (*See, e.g.*, Spec., ¶ [0017], [0022], [0027], [0032] and [0033]-[0035]. *Also see, e.g.*, Figure 2, step 208 and Figure 3, text directly below element 306.).

Claims 11 recites a method, comprising:

receiving a search query (*See, e.g.*, Spec., ¶ [0013] and [0026]. *Also see, e.g.*, Figure 2.);
identifying a plurality of item identifiers responsive to the search query, wherein each item identifier is associated with an item offered for sale and comprises information regarding the item (*See, e.g.*, Spec., ¶ [0015], [0019] and [0027]. *Also see, e.g.*, Figure 1 and Figure 2.);
selecting a first group of item identifiers from the plurality of item identifiers (*See, e.g.*, Spec., ¶ [0015], [0021], [0027] and [0028]. *Also see, e.g.*, Figure 2.);
determining a first degree of certainty that each item identifier from the first group of item identifiers has been correctly associated with a respective item (*See, e.g.*, Spec., ¶ [0017], [0024], [0028] and [0033]. *Also see, e.g.*, Figure 2, step 206 and Figure 3, element 306.);
selecting a second group of item identifiers from the plurality of item identifiers (*See, e.g.*, Spec., ¶ [0015], [0018], [0019], [0022], [0027], [0032] and [0033]. *Also see, e.g.*, Figure 2, steps 204 and 205.);
determining a second degree of certainty that each item identifier from the second group of item identifiers has been correctly associated with a respective item (*See, e.g.*, Spec., ¶ [0017], [0024], [0028] and [0033]. *Also see, e.g.*, Figure 2 and Figure 3.); and

displaying a representation of the first degree of certainty, a representation of the second degree of certainty, and at least one item identifier from the first group in a visually distinct way from at least one item identifier from the second group (*See, e.g., Spec., ¶ [0017], [0022], [0024], [0027], [0032] and [0033]-[0035]. Also see, e.g., Figure 2 and Figure 3.*).

Claim 15 recites a computer program product for outputting item identifiers, comprising:

a computer-readable storage medium (*See, e.g., Spec., ¶ [0011], [0014] and [0018]. Also see, e.g., Figure 1, element 118.;*) and computer program code, encoded on the computer-readable storage medium (*See, e.g., Spec., ¶ [0011], [0014] and [0018]. Also see, e.g., Figure 1, element 118.,*) for:
receiving a search query (*See, e.g., Spec., ¶ [0013] and [0026]. Also see, e.g., Figure 2.;*
identifying a plurality of item identifiers responsive to the search query,
wherein each item identifier is associated with an item offered for sale
and comprises information regarding the item (*See, e.g., Spec., ¶ [0015], [0019] and [0027]. Also see, e.g., Figure 1 and Figure 2.;*
selecting a first group of item identifiers from the plurality of item identifiers,
wherein the first group of item identifiers was received from a vendor
feed, the vendor feed comprising information from at least one vendor
offering one or more items for sale (*See, e.g., Spec., ¶ [0015], [0021], [0027] and [0028]. Also see, e.g., Figure 2.);
selecting a second group of item identifiers from the plurality of item
identifiers, wherein the second group of item identifiers was obtained
by extraction of item identifiers from shopping documents offering
one or more items for sale, the shopping documents not received
directly from a vendor feed (*See, e.g., Spec., ¶ [0015], [0018], [0019], [0022], [0027], [0032] and [0033]. Also see, e.g., Figure 2, steps 204
and 205.;*) and
displaying at least one item identifier from the first group in a visually distinct
way from at least one item identifier from the second group (*See, e.g., Spec., ¶ [0017], [0022], [0027], [0032] and [0033]-[0035]. Also see,
e.g., Figure 2 and Figure 3.*).*

Claim 25 recites a computer program product for outputting item identifiers, comprising:

a computer-readable storage medium (*See, e.g., Spec., ¶ [0011], [0014] and [0018]. Also see, e.g., Figure 1, element 118.;*) and computer program code, encoded on the computer-readable storage medium (*See, e.g., Spec., ¶ [0011], [0014] and [0018]. Also see, e.g., Figure 1, element 118.,*) for:
receiving a search query (*See, e.g., Spec., ¶ [0013] and [0026]. Also see, e.g., Figure 2.;*

identifying a plurality of item identifiers responsive to the search query, wherein each item identifier is associated with an item offered for sale and comprises information regarding the item (*See, e.g., Spec., ¶ [0015], [0019] and [0027]. Also see, e.g., Figure 1 and Figure 2.*); selecting a first group of item identifiers from the plurality of item identifiers (*See, e.g., Spec., ¶ [0015], [0021], [0027] and [0028]. Also see, e.g., Figure 2.*); determining a first degree of certainty that each item identifier from the first group of item identifiers has been correctly associated with a respective item (*See, e.g., Spec., ¶ [0015], [0021], [0027] and [0028]. Also see, e.g., Figure 2.*); selecting a second group of item identifiers from the plurality of item identifiers (*See, e.g., Spec., ¶ [0015], [0018], [0019], [0022], [0027], [0032] and [0033]. Also see, e.g., Figure 2, steps 204 and 205.*); determining a second degree of certainty that each item identifier from the second group of item identifiers has been correctly associated with a respective item (*See, e.g., Spec., ¶ [0017], [0024], [0028] and [0033]. Also see, e.g., Figure 2 and Figure 3.*); and displaying a representation of the first degree of certainty, a representation of the second degree of certainty, and at least one item identifier from the first group in a visually distinct way from at least one item identifier from the second group (*See, e.g., Spec., ¶ [0017], [0022], [0024], [0027], [0032] and [0033]-[0035]. Also see, e.g., Figure 2 and Figure 3.*).

Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection presented for review in the present appeal are: whether Manber in view of Bailey render claims 1, 4, 5, 8-10, 15, 18, 19, 22-24, 39 and 40 obvious under 35 U.S.C. § 103(a); whether Manber in view of Bowman, and in further view of Bailey render claims 11-14, 25-28, 32-35, 37 and 38 obvious under 35 U.S.C. § 103(a); and whether Manber in view of Bailey, and in further view of Bowman render claims 32-35 obvious under 35 U.S.C. § 103(a).

Argument

For the purpose of clarity, Applicants' argument will address the rejections of independent claims 1 and 15 and then address the rejections of independent claims 11 and 25.

I. Independent claims 1 and 15 are not obvious in view of the cited references

To establish a *prima facie* case of obviousness, the references must expressly or impliedly suggest the claimed invention. *See Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985); 35 U.S.C. § 103(a); MPEP § 706.02(j). All words in a claim must be considered in judging the patentability of the claim against the prior art. *See In re Wilson*, 165 USPQ 494, 496 (CCPA 1970); MPEP §§ 2143.03. If even a single claim limitation is not taught or suggested by the prior art, then that claim cannot be obvious over the prior art. *See In re Glass*, 472 F.2d 1388, 1392 (C.C.P.A. 1973).

Independent claim 1 recites elements related to receiving a search query and identifying a plurality of item identifiers responsive to the query. Specifically, independent claim 1 recites:

...selecting a first group of item identifiers from the plurality of item identifiers, wherein the first group of item identifiers was received from a **vendor feed**, the vendor feed comprising information from at least one vendor offering one or more items for sale;

selecting a second group of item identifiers from the plurality of item identifiers, wherein the second group of item identifiers was obtained by extraction of item identifiers from shopping documents offering one or more items for sale, the shopping documents not received directly from a vendor feed; and

displaying at least one item identifier from the first group in a visually distinct way from at least one item identifier from the second group.

Manber does not teach or suggest "selecting a first group of item identifiers received from a vendor feed" as recited in claim 1. Manber describes systems and methods for analyzing

HTML formatted web pages to automatically identify and extract desired information. *See Manber, Abstract.* In the rejection of claim 1, the Examiner states that Manber discloses selecting a first group of item identifiers received from a vendor feed at column 5, lines 31-58. *See FOA, p. 4.* This portion of the reference describes identifying and extracting information from remote vendor servers but does not teach or suggest that the information is received from a vendor feed. Manber gives several examples of the types of content that can be accessed from remote servers, including news stories, advertising content and search query results. Manber further states that this content can include objects such as video and audio clips, URL links, graphic and text objects, etc. These types of content and objects can be received via a variety of ways, and nothing in the reference implies that the content or objects are received via a feed. Thus, it follows that Manber does not teach or suggest selecting a first group of item identifiers received from a **vendor feed**. Only through impermissible hindsight analysis could a vendor feed be found in the non-specific disclosure of Manber.

In response to these arguments the Examiner points to Manber column 6, lines 1-25 as disclosing selecting a first group of item identifiers received from a vendor feed. *See FOA, pp. 16-17.* This portion merely describes a method for identifying and extracting information from remote vendor servers and translating the extracted information to portions of computer code; it does not teach or suggest that item identifiers are received from a vendor feed, much less selecting a first group of item identifiers received from the vendor feed. The Examiner cites to Manber column 6, line 55 through column 7, line 28 as disclosing the claimed second group of item identifiers. *See FOA, pp. 4-5.* However, this portion of Manber describes the same “identification and extraction of information from remote vendor servers” that the Examiner says discloses the first claimed group of item identifiers. Thus, the Examiner is citing the same

feature in Manber as disclosing both the first and second claimed groups of item identifiers, and therefore must be interpreting claim 1 as having no distinction between the first and second claimed groups of item identifiers.

However, the Examiner's interpretation of claim 1 is clearly unreasonable because it requires the first and second groups of item identifiers to be obtained using the same method. As a result, the last element of the claim would require identifiers from the first and second groups to be displayed in a visually distinct way, even though the identifiers were retrieved using the same method. While it is true that the claims must be given their broadest reasonable interpretation, this interpretation must be consistent with the specification and consistent with the interpretation that those skilled in the art would reach. *See Phillips v. AWH Corp.*, 75 USPQ2d 1321 (Fed. Cir. 2005); *In re Cortright*, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999); MPEP §§ 2111.

Here, the specification for the present application discloses making a visual distinction between item identifiers based on the method by which the item information was obtained. *See, e.g., Spec., ¶ [0017], [0032] and [0033]-[0035]. Also see, e.g., Figure 3, text directly below element 306.*)

For example, paragraph [0017] recites:

The search engine 120 can cause the output, such as the display, of the search result set 124 on the client device 102a. The item identifiers can be output with a cue that **distinguishes** between the item identifiers based on the method by which item information was obtained or a degree of certainty of the accuracy of the item information. For example, the items information received directly from a vendor can be grouped together and displayed in a manner **visually distinguishing** these item identifiers from other item identifiers in the result set. Item information automatically extracted from articles can also be grouped together and displayed in a manner **visually distinguishing** these item identifiers from other item identifiers in the result set. In such an embodiment, the item identifiers from each group can be presented in the result set 124 to the user as **visually distinct groups** or the item identifiers from one group or each group can be displayed with a similar visual indication, such as an icon... (emphasis added).

The “selecting” elements of the claim plainly recite obtaining item identifiers using two different methods. Therefore, the claim recites obtaining item identifiers using different methods and displaying the item identifiers in a visually distinct way and is entirely consistent with the specification. The Examiner’s interpretation, in contrast, is at odds with the specification because it would require item identifiers obtained using the same method to be displayed in a visually distinct way. This interpretation is not consistent with the one that a person of ordinary skill in the art would reach, and is unreasonable.

Bailey does not remedy the deficiencies of Manber. Bailey discloses a search engine and a web crawler program to assist users in locating web pages from which user-specified products can be purchased. *See* Bailey, Abstract. However, Bailey does not teach or suggest selecting a first group of item identifiers received from a vendor feed as recited in independent claim 1.

The cited references therefore do not teach or suggest every element of independent claim 1. Independent claim 15 is not obvious for at least the same reasons as independent claim 1.

II. Independent claims 11 and 25 are not obvious in view of the cited references

Independent claim 11 recites elements related to receiving a search query and identifying a plurality of item identifiers responsive to the query. Specifically, independent claim 11 recites:

... selecting a first group of item identifiers from the plurality of item identifiers;
determining a first degree of certainty that each item identifier from the first group of item identifiers has been **correctly** associated with a respective item;
selecting a second group of item identifiers from the plurality of item identifiers;
determining a second degree of certainty that each item identifier from the second group of item identifiers has been **correctly** associated with a respective item...

The Examiner uses Manber to support the rejection, but acknowledges that Manber does not specifically teach or suggest determining first and second degrees of certainty that item identifiers are correctly associated with respective items.

Bowman does not remedy the deficiencies of Manber. Bowman describes software for identifying the items most relevant to a current query based on a count of how frequently the items are selected in connection with the search queries. *See* Bowman, Abstract. However, using counting to determine relevance is not the same thing as determining a degree of certainty indicating correctness. In the rejection of claim 11 the Examiner states that Bowman discloses determining degrees of certainty that item identifiers are correctly associated with respective items at steps 801, 802 and 806 of FIG. 8. *See* FOA, p. 9. Steps 801 and 802 describe ranking items in a search result list by assigning a score to each item based on how frequently the items are selected by users in connection with similar search queries. *See* Bowman, Abstract and column 8, lines 51-67. The terms used to retrieve each item are assigned a similar score. Step 806 describes combining the scores for the items and the scores for the terms to generate a “ranking” for each item in the search results. Bowman therefore discloses rankings that indicate how frequently an item is selected by users.

However, the “rankings” described by Bowman do not teach or suggest determining degrees of certainty that item identifiers are correctly associated with respective items as claimed. For example, if “Search Result A” has a higher ranking than “Search Result B,” then this ranking indicates that for similar search queries “Search Result A” has been selected more frequently than “Search Result B.” Bowman does not teach or suggest that these rankings can indicate whether “Search Result A” or “Search Result B” is **correctly** associated with a respective item. If Bowman ranked “Search Result A” ahead of “Search Result B,” the ranking

would merely indicate that “Search Result A” has been selected more frequently than “Search Result B” and not indicate whether a result is correctly associated with a respective item. Thus, Bowman does not teach or suggest determining degrees of certainty that item identifiers are correctly associated with respective items.

In response to these arguments, the Examiner points to the combination of Manber column 3, lines 1-24 and Bowman column 5, lines 27-43 as disclosing determining degrees of certainty that item identifiers are correctly associated with respective items. *See* FOA, pp. 18-19. Manber column 3, lines 1-24 discloses comparing a first string extracted from a first page against a second string extracted from a second page to determine the similarity between the first and second strings. Bowman column 5, lines 27-43 discloses a rating score that indicates how frequently a given item identifier is selected for a given query term. Thus, at most Manber discloses determining the similarity of two strings and Bowman discloses counting to determine how frequently item identifiers are selected for a given query term. Neither Manber nor Bowman teaches or suggests information about whether item identifiers are **correctly** associated with respective items. Thus, Manber and Bowman, alone or in the combination suggested by the Examiner, do not teach or suggest every limitation of claim 11.

Bailey does not remedy the deficiencies of Manber and Bowman. The cited references therefore do not teach or suggest every element of independent claim 11. Independent claim 25 is not obvious for at least the same reasons as independent claim 11.

Accordingly, Appellants respectfully submit that the cited references do not teach or suggest every element of claims 1, 11, 15 or 25. The dependent claims not discussed above incorporate the limitations of their base claims and are therefore patentably distinct from the cited references for the same reasons. Therefore, a person of ordinary skill in the art considering

the references either individually or in combination would not find the claimed invention obvious. For these reasons, Appellants request that the Board overturn the rejections of the claims.

Respectfully submitted,

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Claims Appendix

1. A method, comprising:

receiving a search query;

identifying a plurality of item identifiers responsive to the search query, wherein each item identifier is associated with an item offered for sale and comprises information regarding the item;

selecting a first group of item identifiers from the plurality of item identifiers, wherein the first group of item identifiers was received from a vendor feed, the vendor feed comprising information from at least one vendor offering one or more items for sale;

selecting a second group of item identifiers from the plurality of item identifiers, wherein the second group of item identifiers was obtained by extraction of item identifiers from shopping documents offering one or more items for sale, the shopping documents not received directly from a vendor feed; and

displaying at least one item identifier from the first group in a visually distinct way from at least one item identifier from the second group.

4. The method of claim 1, wherein the extraction is performed at least in part by a template-based extraction method.

5. The method of claim 1, wherein the extraction is based at least in part on the search query.

8. The method of claim 1, wherein displaying the first group of item identifiers comprises displaying a first list and wherein displaying the second group of item identifiers comprises displaying a second list, wherein the first list is visually separated from the second list when displayed.

9. The method of claim 1, wherein displaying the first group of item identifiers comprises displaying a first grid and wherein displaying the second group of item identifiers comprises displaying a second grid, wherein the first grid is visually separated from the second grid when displayed.

10. The method of claim 1, further comprising:
selecting a third group of item identifiers from the plurality of item identifiers, wherein
the third group of item identifiers was obtained by a source different from direct receipt
from a vendor feed and extraction from shopping documents and
displaying at least one item identifier from the third group in a visually distinct way from
the at least one item identifier from the first group and from the at least one item
identifier from the second group.

11. A method, comprising:
receiving a search query;
identifying a plurality of item identifiers responsive to the search query, wherein each
item identifier is associated with an item offered for sale and comprises information
regarding the item;

selecting a first group of item identifiers from the plurality of item identifiers;
determining a first degree of certainty that each item identifier from the first group of
item identifiers has been correctly associated with a respective item;
selecting a second group of item identifiers from the plurality of item identifiers;
determining a second degree of certainty that each item identifier from the second group
of item identifiers has been correctly associated with a respective item; and
displaying a representation of the first degree of certainty, a representation of the second
degree of certainty, and at least one item identifier from the first group in a visually
distinct way from at least one item identifier from the second group.

12. The method of claim 11, wherein the first degree of certainty is based at least in
part on a first method of obtaining the item identifiers.

13. The method of claim 12, wherein the first method of obtaining the item identifiers
in the first group comprises receiving item identifier information from a vendor feed, the vendor
feed comprising information from at least one vendor offering one or more items for sale.

14. The method of claim 12, wherein the second degree of certainty is based at least
in part on a second method of obtaining the item identifiers, the second method comprising
extraction of item identifiers from shopping documents offering one or more items for sale, the
shopping documents not received directly from a vendor feed.

15. A computer program product for outputting item identifiers, comprising:

a computer-readable storage medium; and

computer program code, encoded on the computer-readable storage medium, for:

receiving a search query;

identifying a plurality of item identifiers responsive to the search query, wherein each item identifier is associated with an item offered for sale and comprises information regarding the item;

selecting a first group of item identifiers from the plurality of item identifiers, wherein the first group of item identifiers was received from a vendor feed, the vendor feed comprising information from at least one vendor offering one or more items for sale;

selecting a second group of item identifiers from the plurality of item identifiers, wherein the second group of item identifiers was obtained by extraction of item identifiers from shopping documents offering one or more items for sale, the shopping documents not received directly from a vendor feed; and

displaying at least one item identifier from the first group in a visually distinct way from at least one item identifier from the second group.

18. The computer program product of claim 15, wherein the extraction is performed at least in part by a template-based extraction method.

19. The computer program product of claim 15, wherein the extraction is based at least in part on the search query.

22. The computer program product of claim 15, wherein displaying the first group of item identifiers comprises displaying a first list and wherein displaying the second group of item identifiers comprises displaying a second list, wherein the first list is visually separated from the second list when displayed.

23. The computer program product of claim 15, wherein displaying the first group of item identifiers comprises displaying a first grid and wherein displaying the second group of item identifiers comprises displaying a second grid, wherein the first grid is visually separated from the second grid when displayed.

24. The computer program product of claim 15, further comprising program code, encoded on the computer-readable medium, for:

selecting a third group of item identifiers from the plurality of item identifiers, wherein the third group of item identifiers was obtained by a source different from direct receipt from a vendor feed and extraction from shopping documents and displaying at least one item identifier from the third group in a visually distinct way from the at least one item identifier from the first group and from the at least one item identifier from the second group.

25. A computer program product for outputting item identifiers, comprising:
a computer-readable storage medium; and
computer program code, encoded on the computer-readable storage medium, for:
receiving a search query;

identifying a plurality of item identifiers responsive to the search query, wherein each item identifier is associated with an item offered for sale and comprises information regarding the item;

selecting a first group of item identifiers from the plurality of item identifiers;

determining a first degree of certainty that each item identifier from the first group of item identifiers has been correctly associated with a respective item;

selecting a second group of item identifiers from the plurality of item identifiers;

determining a second degree of certainty that each item identifier from the second group of item identifiers has been correctly associated with a respective item; and

displaying a representation of the first degree of certainty, a representation of the second degree of certainty, and at least one item identifier from the first group in a visually distinct way from at least one item identifier from the second group.

26. The computer program product of claim 25, wherein the first degree of certainty is based at least in part on a first method of obtaining the item identifiers in the first group.

27. The computer program product of claim 26, wherein the first method of obtaining the item identifiers in the first group comprises receiving item identifier information from a vendor feed, the vendor feed comprising information from at least one vendor offering one or more items for sale.

28. The computer program product of claim 25, wherein the second degree of certainty is based at least in part on a second method of obtaining the item identifiers in the

second group, the second method comprising extraction of item identifiers from shopping documents offering one or more items for sale, the shopping documents not received directly from a vendor feed.

32. The method of claim 1, further comprising:
determining a degree of certainty that an item identifier has been correctly associated
with an item; and
displaying a representation of the degree of certainty.

33. The method of claim 32, wherein the degree of certainty is based on a reliability measure of the information received from the vendor feed.

34. The method of claim 32, wherein the degree of certainty is based on a reliability measure of the information obtained through extraction of item identifiers from shopping documents.

35. The method of claim 32, wherein the degree of certainty is based on a determination of accuracy of the information provided for each item, the accuracy determination based at least in part on whether the information was received from a vendor feed.

36. The method of claim 11, wherein the first degree of certainty is based on a reliability measure of the information received from a vendor feed.

37. The method of claim 11, wherein the second degree of certainty is based on a reliability measure of the information obtained through extraction of item identifiers from shopping documents offering one or more items for sale, the shopping documents not received directly from a vendor feed.

38. The method of claim 11, wherein the first degree of certainty is based on a determination of accuracy of the information provided for each item, the information obtained by one of extraction from shopping documents and receipt from a vendor feed.

39. The method of claim 1, wherein the vendor feed comprises a data stream received from the at least one vendor.

40. The method of claim 39, wherein the data stream includes data describing an attribute of an item offered for sale by the at least one vendor.

Evidence Appendix

None.

Related Proceedings Appendix

None.